Image AF/1763

PATENT
Atty. Docket No.:AMAT/4515/DSM/PMD/JW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Bang, et al.	§		
Serial No.: 09/832,168	§	Group Art Unit:	1763
Confirmation No.: 8789	§	Examiner:	Rudy Zervigon
Filed: April 10, 2001	§		
For: Concentration Profile on Demand Gas Delivery System (Individual Divert Delivery System)	§		

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1/30/04 Kent N. Zahn
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Dear Sir:

REPLY BRIEF

Applicants submit this Reply Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 1763 dated April 14, 2003, finally rejecting claims 1-11 and 17-21. Three copies of this brief are submitted for use by the Board.

I. THE EXAMINER ERRS IN STATING THAT IT IS APPLICANTS' POSITION THAT VALVE (174) IS NOT A VALVE CONNECTED BETWEEN A VAPORIZER AND A PROCESSING SYSTEM.

In the Examiner's Answer dated December 8, 2003, the Examiner asserted that it is Applicants' position that "valve (174) is not a valve connected between a vaporizer and a processing system." Applicants respectfully note that Applicants included the statement "The apparatus includes a valve (174) between vaporizer (122) and processing chamber (130)" in their Appeal Brief (See Appeal Brief, p. 4, lines 13-14). Applicants submit that the Examiner has construed Applicants' statement "As input (176) of *Gauthier* is incapable of functioning as an output, valve (174) is not a valve connected between a vaporizer and a processing system, the valve having a valve input connected to a vaporizer output and a first valve output connected to a processing system input and a second valve output connected to a bypass line" (See p. 5, lines 4-8, of the Appeal Brief) as an assertion by Applicants that valve (174) is not a valve connected between a vaporizer and a processing system. The Examiner is ignoring the phrase "the valve having a valve input connected to a vaporizer output and a first valve output connected to a processing system input and a second valve output connected to a bypass line" in Applicants' statement on p. 5, lines 4-8 of the Appeal Brief. Applicants submit that the Examiner cannot ignore the phrase "the valve having a valve input connected to a vaporizer output and a first valve output connected to a processing system input and a second valve output connected to a bypass line", as it is an element of claim 1, and all of a claim's elements must be considered in determining patentability.

II. THE EXAMINER ERRS IN ASSERTING THAT *KING'S* CONTROLLER FOR ELECTRICALLY CONTROLLED THREE-WAY VALVE MEANS TEACHES, SHOWS, OR SUGGESTS A CONTROLLER FOR SWITCHING A VALVE BETWEEN A FIRST VALVE OUTPUT AND A SECOND VALVE OUTPUT.

The Examiner states that Applicants appear to believe *King's* three-way valves can only open to all three outlets or only close to all three outlets. The Examiner further asserts that *King's* valves can open or close to each of all three outlets where, at any one time, one of the three outlets is open. Applicants submit that they have not asserted that King's three-way valves can only open to all three outlets or only close to all three outlets. Applicants simply referred in the Appeal Brief (p. 5, lines 12-14) to

King's description of a logic device that generates signals that can be used to manipulate a three-way valve to fully open or fully close (column 3, lines 55-58. See also column 4, lines 4-6).

Applicants note that the Examiner did not address Applicants' statement that Figure 1 of *King* shows an input from the feed stream, an input from the purge gas, and an output to the powder form evaporator for each three-way valve. Applicants maintain that *King* only describes three-way valves having two inputs and one output. There is no teaching or suggestion in *King* of how the three way valves in *King* could function in the system provided in *King* with a three way valve having one input connected to a vaporizer output and a first valve output connected to a processing system input and a second valve output connected to a bypass line. Furthermore, *King* does not teach or suggest that logic device 59 is a controller configured to switch a valve between a first valve output connected to a processing system input and a second valve output connected to a bypass line.

III. THE EXAMINER ERRS IN ASSERTING THAT *GAUTHIER'S* THREE WAY VALVES TEACH A VALVE HAVING A FIRST VALVE OUTPUT CONNECTED TO A PROCESSING SYSTEM INPUT AND A SECOND VALVE OUTPUT CONNECTED TO A BYPASS LINE.

The Examiner asserts that input (176) of *Gauthier* is capable of functioning as an output to the vaporizer, and that the functioning of (176) as an output to the vaporizer is solely a function of the operating pressures across *Gauthier's* valve-pipe connections. Applicants maintain their assertion that gases would not flow out of input (176) back to the vaporizer (122), as the valve (174) is necessarily at a lower pressure than the vaporizer (122) (See Appeal Brief, p. 4, line 26 to p. 5, line 2). Thus, during processing conditions, valve (174) has an input from the vaporizer (122), input (176), and an output to the chamber (130) and does not have a second valve output.

The Examiner is now also asserting that (176) is an output connected to a foreline of the exhaust system (164 to blower stack) of the processing system and that *Gauthier* teaches an equivalent apparatus that performs the function of vapor delivery.

Applicants agree that input (176) can function as an output when the valve (160) is used for pumping out the system of *Gauthier* with vacuum source (162) through three way valve (164). However, during pumping out of the system, there is no bypass line in *Gauthier*, as *Gauthier* describes pumping out the entire system rather than pumping out individual components of the system and bypassing other components. Thus, in the conditions in which input (176) may function as an output, *i.e.*, pumping out conditions, there is no part of the system to bypass, and thus the line between input (176) and valve (164) is not a bypass line.

Therefore, input (176) can not function as a second valve output connected to a bypass line during processing conditions or during pumping out conditions. Applicants submit that there is no teaching or suggestion in Gauthier that input (176) is capable of functioning as a second valve output (of a valve having a valve input connected to a vaporizer output and a first valve output connected to a processing system) connected to a bypass line under any conditions.

Conclusion

In conclusion, *Gauthier* and *King*, alone or in combination, do not teach, show, or suggest an apparatus for delivering processing gas from a vaporizer to a processing system, comprising a valve connected between the vaporizer and the processing system, the valve having a valve input connected to a vaporizer output and a first valve output connected to a processing system input and a second valve output connected to a bypass line, and a controller for switching the valve between the first valve output and the second valve output. Therefore, it is believed that the rejections made by the Examiner should be reversed. Thus, Applicants respectfully request reversal of the rejection and allowance of claims 1-11 and 17-21.

Respectfully submitted,

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